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Report of Prof. Geo. S. Hopkins,

Manhattan, Nevada, Dec. 15, 1906.

(247)

Mr. L. A. Stockley,

Manhattan, Nev.

item 12

Dear Sir:-

At your request and in pursuance with your instructions I have visited and made a careful and personal examination of the Sierra-Nevada group of mines situated in Jefferson Canyon and report to you the following:

I find the property consists of eleven claims, two millsites, two water rights and a townsite.

The names of the claims are as follows: Sierra-Nevada, Union-South, Oregon, Admiral, Monitor, Starry-Flag, Bryan, Keersage, Maine, New York and Missouri. Also Starry-Flag Mill-site and water right.

The property is situated on the south side of Jefferson Canyon about 5 miles east of Smoky Valley, 20 miles north of Manhattan, 7 miles northeast of Round Mountain and at an elevation of 7,500 feet to 9,000 feet above sea level, as shown by the accompanying diagram.

The property has been held and worked by one man for more than 35 years, taking out and shipping all high grade ore and placing the remainder in convenient dumps, so that it might be worked later on when conditions were more favorable.

These dumps will aggregate in the neighborhood of 100,000 tons and will mill about \$10.00 per ton. The values contained in the ore are represented by about four-fifths silver and the remainder in gold.

There are three parallel veins passing through the property in a northeast and southwest direction, within 600 feet.

The most northerly vein passes through the Maine and New York claims for a distance of 2,500 feet and is in porphyry for the entire distance. It varies in width from 3 to 12 feet and carries values from \$10 to \$16 per ton.

The middle or second vein passes through the Oregon, Union-South and Sierra-Nevada claim for a distance of 4,500 feet and it is on this vein and adjoining the Sierra-Nevada claim that the Jefferson Mining Company took out several million dollars.

The vein pitches about 65% in a northerly direction and is from 4 to 25 feet in width, the values run from \$8 to \$60 per ton. The third or upper vein runs through the Admiral, Monitor, Starry-Flag, Bryan and Kearsage, for a distance of 7,500 feet, this vein varies from 3 to 20 feet.

It has a well defined foot wall of granite and a hanging wall of metamorphic rock such as shale, slate, schist and quartzite which occurs between the two veins as an intermediate rock.

The values are sufficiently high in this vein to pay well to mill on the ground and considerable of it is of shipping grade.

The pitch of the granite foot wall is about 45% in a northerly direction and must sooner or later intercept the middle vein and make a strong contact with a granite foot wall and a porphyry hanging wall and will be a consolidation of the two veins from which much may be expected in the future.

At a point 400 feet below the house a tunnel could be run, that would intercept the New York vein at a depth of 150 feet, the Sierra-Nevada at 600 feet and the Bryan and Starry-Flag at a depth of 800 feet.

There is also a fine mill-site at the mouth of the tunnel.

There is ample water for milling and power purposes and timber in abundance from one to three miles distance at reasonable cost. A good wagon road traverses the property, formerly used as a stage road from Belmont to Austin.

The scale of wages for miners is \$4. for 8 hours.

The cost of milling will be at the minimum rate for many years as it is a tunnel and gravity proposition.

The nature and character of the ore varies considerably on the property, gold occurs sufficiently free to justify the ordinary stamp and amalgamating process, followed by concentrators and cyanide process.

In conclusion will say that taking into consideration the favorable conditions of this property, such as the immense amount of development work already done, thousands of tons of milling ore on the dumps, its ideal situation, its tunnel and gravity facilities for handling the ore, its accessibility for freight and advantages of wood and water make it in my judgment one of the best mining propositions in this section of Nevada and well worthy of favorable consideration.

All of which is respectfully submitted.

(Signed)

Note.

The above report was made by Prof. Geo. S. Hopkins, mining engineer and geologist of world fame.

He is frequently associated with Prof. Jennie in U. S. Government work and was connected with the management of the "Home-Stake" mine in Lead, S. D.

Further information concerning Hopkins may be had from T. J. Grear, Supt., of the "Home-Stake."

Report by L. A. Stockley,

April, 1907.

In addition to the eleven claims described in the report of Prof. Geo. S. Hopkins I have been able to obtain an option on four more adjoining the same and being an extension of the same veins described in his report.

These claims, fifteen in all, embrace all of the mineral ground in Jefferson Canyon that is feasible for working at a low cost.

The names of the claims are as follows: Admiral, Monitor, Starry-Flag, Bryan, Kearsage, Oregon, Union-South, Sierra-Nevada, Maine New York, Jefferson-Cross, Prussian Fraction, Alabama, Berlin and the Jefferson Townsite mining claim.

Also the patent ground known as the Jefferson Mill-side and the Prussian Mill-side, also the Starry-Flag Mill-site and water right and the Sierra-Nevada Mill-site and water right and four tunnel sites, each 3,000 feet long.

It is my object in this report to describe the development work done on each claim and the results of the same, having made as conservative an estimate as was possible.

SIERRA NEVADA.

First work consists of an incline shaft, 50 ft. deep on the boundary of the old Jefferson mine.

Ore shipped from this shaft from sorted rock, netted \$464 per ton in silver and \$70 in gold.

This is the record of the mill in Austin, where the ore was treated.

The vein is from 4 to 15 feet in width. The dump at this shaft assays \$28 per ton.

The Jefferson Mine referred to is a small claim situated on the top of the mountain 200 feet wide and 1000 feet long.

It was worked in the early seventy's and 720 feet deep, and produced \$3,000.000 in 18 months according to the records of the Bank of California.

On the 700 foot level and in the east drift, where the "pay shoot" enters the Sierra-Nevada claim, a break occurs in the ledge, on account of this and the demonitzation of silver, (work) stopped.

This property is held at a high figure by the present owners. My group of claims surround this wonderful mine on all four sides and it is reasonable to suppose that I will encounter their rich "pay shoot" with sufficient depth.

A great amount of work has been done on this same vein on these claims and much rich ore shipped from the same.

Another 50 foot shaft has been sunk on the same claim several hundred feet distant from the boundary line, exposing a vein six feet wide. Picked ore shipped from this shaft assayed \$5,000 per ton. 1500 pounds shipped by Nelson Brothers, Leasors, averaged \$2 per lb.

These facts simply show how it is possible for the owners to do this great amount of developement work, unassisted by capital. There are three large tunnels on the Sierra-Nevada claim.

TUNNEL NO. 1

A cross-cut tunnel 100 feet in length to where it intersects the vein at a depth of 100 feet.

Levels have been run on the vein for 100 feet in both directions showing a width of 4 to 12 feet.

Samples that I took in the cross cuts give an average of \$17.04 per ton.

There are in the neighborhood of 1,000 tons of the dump that will average \$15 per ton.

TUNNEL NO. 2

This tunnel is down hill from No. 1 and cuts the vein 300 feet deeper. Levels have been run along the vein for 360 feet in each

direction, exposing a big strong vein that will mill \$10 per ton.

There are some exceedingly rich bunches in these workings that will bring the general average up considerable higher when it is all being worked. The owner has the shipping receipt for four tons of ore that was milled in Belmont, that worked \$490 per ton.

TUNNEL NO. 3

A cross cut tunnel intercepts the vein 400 feet deep, exposing a vein 22 feet wide. Levels have been run on the ore body for 500 feet and although the vein is 22 feet wide, only 5 or 6 feet of ore next to the hanging wall have been taken out. Samples taken across the full width average between \$8 and \$10 per ton.

There are rich bunches in these workings that milled \$140 per ton and a few tons worked in the old Jefferson Mill, netted \$300 per ton.

This work was done seven years ago and will show an enormous tonnage of ore in sight.

There are 2,500 tons on the dump at the mouth of the tunnel that gave an average of \$9.60 per ton, from seventy different samples. On the east boundary of this claim there is a 50 foot tunnel that cuts a vein from 4 to 5 feet in thickness, of milling ore.

The vein has been stripped on the surface near the boundary line of the Union-South claim and shows a width of 8 feet and will mill from \$10 to \$15 per ton in gold.

UNION SOUTH.

One incline shaft 150 feet deep, caved in and could not be examined. The character of the ore is free milling and considerable of its assays very high.

400 feet down the hill a tunnel has been started to connect with this shaft, but the work was not complete, the tunnel is in 80 feet.

On the top of the hill on this claim the free dirt will pan from 50 colors up; this is occasioned by the rich stringers of quartz, running through the porphyry.

A small amount of work done on a talc ledge 18 inches wide on the top of the hill, shows good values in free gold.

STARRY-FLAG.

Incline shaft 70 feet deep, vein 3 to 5 feet wide, 200 tons worked in the Jefferson mill, netted \$40 per ton.

East of these workings, about 400 feet, there is a 190 feet tunnel, with a level of 100 feet long the vein which is from 2 to 3 feet wide with good values and a free milling ore.

200 feet of this work, 20 tons of ore worked from grass roots went \$65 per ton.

I am now running a tunnel which will tap this vein 800 feet.

KEARSAGE.

The work consists of an incline shaft 40 feet deep on a 20 feet vein. Sorted ore from this shaft worked \$150 per ton in gold.

Work has been abandoned on account of water. The vein should be worked through a tunnel that would drain it and that could be run along the course of the lead and gain great depth on this claim, also on the Starry-Flag claim.

BRYAN.

Work consists of an incline shaft 75 feet deep. The owner has shipped ore from this shaft amounting to \$25,000. This was a rich bunch of ore and the richest of it has been worked out, but there is no reason why there should not be more as there has been no exploring done whatever contact and it is a strong vein with a granite foot wall and a shale hanging wall.

There are 500 tons on the dump from which the high grade has been culled that samples \$30 per ton.

At a distance of 40 ft. there is a 150 foot shaft on the same vein which is from 3 to 5 feet wide. Shipped \$75,000.

The samples taken from the bottom of this shaft show an average value of \$37 per ton and six inches of the ore assayed \$174 per ton.

Thirty feet from this vein and running parallel with it is a four foot vein that assays about \$10 per ton.

JEFFERSON-CROSS.

This is a cross vein running at right angles with the vein on the Sierra-Nevada, it is in porphyry for the entire distance and is from 2 to 4 feet in width.

The vein has been opened up on the surface for the entire length of the claim and has numerous shafts and tunnels.

There are bunches in this vein that will assay in to the thousands per ton, shipments have been made that netted \$300 per ton.

A tunnel is being run at the present time that is in 400 feet along the course of the vein but it cuts it only in a few places as the course of the vein is somewhat irregular.

The object in running this tunnel is to get depth on the vein as its values have been thoroughly proven by two shafts 10 feet deep and each show a width of from 2 to 4 feet.

Picked ore from one of these shafts yielded \$1,000 per ton. There is considerable shipping ore on the dumps, 300 tons milled from these workings netted \$38 per ton.

ALABAMA.

Shaft 75 feet deep on vein matter, needs cross cutting. This vein is on the Jefferson contact and should prove of great value with sufficient development work.

PRUSSIAN FRACTION.

This is the same vein that runs through the Jefferson-Cross Claim and is from 2 to 4 feet wide.

Work consists of an incline shaft 25 feet deep. Some picked ore from this shaft milled \$300 per ton.

The ore as a body runs from \$10 to \$15 per ton. There are several prospect holes along the surface that shows similar values.

BERLIN.

The Berlin vein is an extension of the Jefferson vein. It has three shafts sunk on the vein, one 35 feet another 100 feet and another 150 feet. In all three shafts the work shows a splendid strong vein, averaging in width from 3 to 7 feet.

The values run from \$5 to \$20 per ton. 300 tons milled out of the 160 foot shaft, netted \$30 per ton.

There are about six inches on the foot wall that will average \$130 per ton.

This is a strong contact vein with perfect walls and NOT
A STICK OF TIMBER HAS BEEN USED IN SINKING ANY OF THESE SHAFTS.

MAINE.

Good strong vein with tunnel along the vein for 40 feet, it is a low grade but plenty of it.

MISSOURI.

Location work done, has a shaft on vein matter of little value. The claim is held principally as a town site property.

OREGON.

No development work done, pass free gold across the ledge.

NEW YORK.

Location work done on vein three feet wide. This claim is also held as a townsite property.

ADMIRAL.

Strong vein needs development to show its value.

MONITOR.

Big strong vein, needs development, low grade, free milling.

REMARKS.

Mr. Kanrohat has owned and developed this ground for more than thirty years. He has taken out in the neighborhood of \$170,000 and has expended something like \$100,000 in development work. He has in sight in one tunnel along 180,000 tons of ore ready for stoping. This property was acquired by location and the title is without dispute.

When the 15 stamp mill was in operation on the Jefferson mine it supported a town of 2,000 inhabitants, many of the deserted buildings are still standing and may yet be put to good use.

There are 80 acres of good building ground, and any enterprising company taking hold of this property, can survey and plat the same into a town-site and the lots will find ready sale as there is an abundance of wood and water.

which can be said of few camps in Nevada. Fine stream of water running down Canyon all the year, varying in quantity from 100 miners' inches to 1,000 by picking this water up at its source and piping it a distance of 10,000 feet, a fall of 1,000 feet may be gained thereby generating sufficient power to operate the mines and light the town. In equipping the property there will be no expensive roads to build and the simplest machinery may be used in the treatment of the ore, as it is in no way combustious. Every facility is at hand for mining and milling and it should be done as cheaply as any large mine.

There are several thousand tons of ore on the dumps that was considered by the owner too low grade to ship, that will pay a handsome profit when treated on the ground.

The old Jefferson mine which has a body of five solid feet of \$5000 ore closed down on account of a break in the ledge, which occurred on the boundary line of our property and the same could not be located without exploiting in our ground and their immense dumps (which we now possess) they would have worked had the cyanide process for the treatment of ore then been known.

Yours very truly,

(Signed)

Lewis A. Stockley.

Jefferson Canyon, Nye County, Nevada.

Nov. 6, 1911.

This report following Mr. Stockley's is for the purpose of bringing the development and improvements on the Jefferson Gold and Silver Mining Co's property down to date.

The property consists of sixteen claims:

Since Stockley's report No 2 tunnel has been extended 130 ft. westward to where it cuts a vein from 4 to 16 feet in width. The ore chute has been proven for 200 ft. in length and 500 feet vertically; in the 100 ft. winz. the ore averages \$50 per ton.

There are rich seams running through this vein that will run \$2500 in silver and \$700 in gold.

There are about 1,000 tons of ore on the dump at the mouth of the tunnel that will run from \$10 to \$50 per ton. The veins in this tunnel are 400 ft. apart on the surface and only 130 feet apart in the tunnel.

The tunnel cuts them 500 feet deep. Down the mountain 350 ft. from #2 is #4 tunnel which will cut the two veins below where they come together when extended.

There is a complete new revised Huntington mill of 50 ton capacity, two concentrating tables, and two ore crushers, a Hercules rock breaker and a half roller crusher. Also a complete and up to date cyanide plant of 150 ton capacity, an 50 horse power Corliss engine and 60 horse power boiler.

There are 4 well equipped blacksmith shops, also a well equipped assay office, 1/2 dozen ore cars, tracks and switches. Standard warehousing, mining, milling and assay supplies, 2 gasoline engines, 1 of 25 H.P. and 1 of 10 H. P., tools enough to employ 100 men, a cook house, house, bunk houses and 12 well equipped living houses.

The mill has never been operated and was put in two years ago at a nominal cost of \$90,000 thereby insuring everything necessary to the handling and maintenance of a first class mining property.

The Bishop Light and Power Co. will install light and electric power at a flat rate at any time from Round Mountain a few miles distant about 3 miles.

It will require about 2 weeks to connect the pipes in cyanide plant.

This is to certify that this is an absolutely truthful report

C. J. Kanrohat
President.

The Jefferson Gold and Silver Mining Co.

MINE

DATE

No. 2 Tunnel - N. 32° E - Dip 37°
toward mouth - H.W. - bedded -
hard - schistose limestone. - H.W. Rhy
Porphyry

Sketch - above - 120' wing -

Starry Flag Vein

Claims
\$30⁴⁰ ~~40~~

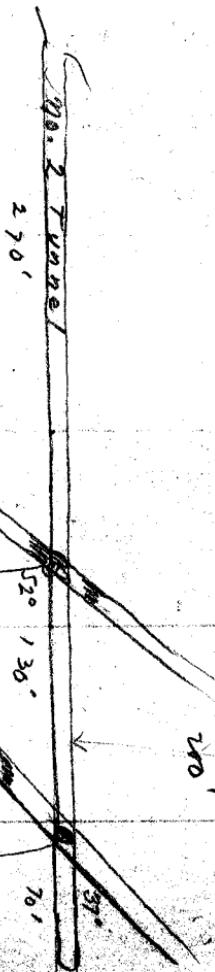
390

2.5 good ore.

Dec. 15/14

Rock
100 ft
100

10' each way



intervals - 40' apart on surface